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July 24, 2006

Signature on File

TO: Mr. Alfred Dobronz, Principal
Stirling Elementary School

FROM: Kenneth I. Partee, Project Manager Occupational Health and Environmental Control
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 136, 137 and 138

On June 15, 2006 I conducted an assessment of FISH 136, 137 and 138 at **Stirling Elementary School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of each item identified and listed in the attached evaluation.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-3200.

cc: Sam Gregg, Area Superintendent
Margaret Underhill, Area Director
Jeffrey S. Moquin, Director, Risk Management
Frank Girardi, Project Manager, Facilities and Construction Management
Diane Watts, Broward Teachers Union
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

KP/tc
Enc.

IAQ Assessment

Stirling Elementary School

Location Number 0691
 Evaluation Requested June 15, 2006
 Evaluation Date June 15, 2006

Time of Day 11:50 a.m.

Outdoor Conditions Temperature 96.7 Relative Humidity 45.9 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
136		72 - 78		30% - 60%		Max 700 > Ambient	
Noticeable Odor	No		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Tackable/Concrete		No	No	None		
Flooring	Tile/Carpet		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Repair tackable as appropriate
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:
 - Tackable wall under window has elevated moisture content (18-24%)

Recommendations:

Site Based Maintenance:
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:
 - Evaluate for cause of elevated moisture in tackable wall under window and repair as appropriate. Repair/replace tackable wall material as appropriate.

IAQ Assessment

Stirling Elementary School

Location Number 0691
 Evaluation Requested June 15, 2006
 Evaluation Date June 15, 2006

Time of Day 11:50 a.m.

Outdoor Conditions Temperature 96.7 Relative Humidity 45.9 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
137		72 - 78		30% - 60%		Max 700 > Ambient	
Noticeable Odor	No		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Plaster		No	No	None		
Flooring	Tile		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Repair wall as appropriate
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Plaster under windows is blistering

Recommendations:

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate for cause of blistering plaster under windows and repair as appropriate. Repair/replace wall material as appropriate.

***Note - rear wall has a 3' x 5' section of magnetic black paint**

IAQ Assessment

Stirling Elementary School

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Time of Day 11:50 a.m.

Outdoor Conditions Temperature 96.7 Relative Humidity 45.9 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
138	77.5	72 - 78	52.1	30% - 60%	584	Max 700 > Ambient	3
Noticeable Odor	Yes		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Tackable/Concrete		No	No	None		
Flooring	Tile/Carpet		Yes	No	See below		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Repair tackable as appropriate
Flooring	No	Yes	Yes	Clean as appropriate
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Damaged range hood
- Tackable wall under windows at rear has elevated moisture content (20-30%+)
- Tackable wall, two sections to the right of the windows, has elevated moisture content (20-28%)
- Carpet has minor staining
- Dust build up on environmental surfaces

Recommendations:

Site Based Maintenance:

- Clean carpet with extraction machine
- Clean environmental surfaces as appropriate
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Replace range hood
- Evaluate for cause of elevated moisture in tackable wall under windows and to the right of windows and repair as appropriate. Repair/replace tackable wall material as appropriate.